Reviewer's report

Title: Midline shift in relation to thickness of traumatic acute subdural hematoma predicts mortality. A retrospective cohort study.

Version: 5
Date: 20 September 2015

Reviewer: Lucia M. Li

Reviewer's report:

Minor Revisions:
- Abstract L3 – existence spelt incorrectly
- Background – occasionally, there are capital letters at the start of a new line (but which are the start of a new sentence) e.g. L3 “clinical outcome”
- p10 Line 24 – The reason for choosing this method…
- p10 Typo Line 26 – be defined
- STROBE reporting requires that some indication is made of how many people were screened (and why, if any, they were excluded) as well as saying how many were included
- p14 Line 12 – mentions two tables which show concomitant diseases & bleeding tendencies, but I cannot see these tables. The Table 1 & 2 at the bottom of the manuscript are results of the MLS and correlations with outcome.

Major Compulsory Revisions:
The authors report a compelling finding. However, their results don’t quite justify their conclusion that this measure should be included in future prognostication scales. First, they only have evidence from 8 patients. Secondly, I appreciate that with the small numbers in their study, a multivariate analysis would have proved tricky. The authors make this conclusion without any statistical backing of how the MLS>TH+3 measure would interact with other predictors of severity (which, as they note, overlap with this measure). I think their discussion would be strengthened if the authors discuss how such a measure would fit in to a predictor score. With such a high PPV, would it act as a ‘threshold’ marker i.e. any patient with MLS>TH+3 would be predicted to have 100% mortality – how would a model deal with that? Would it have any contribution to predicting outcome of survivors?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests